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DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401

TO: Bill Yanovitch
FROM: George Harman ^{GH}
VIA: Paul Slunt ^{2.5.}
DATE: July 14, 1975
SUBJECT: Biological conditions of Mill Creek in the Little Elk Creek
drainage basin.

In response to Mr. Lewandowski's memorandum to Paul Slunt dated June 19, 1975, a biological survey of the watershed drains the former disposal site of the Galaxy Chemical Co. was conducted on July 2, 1975.

The data from this survey when compared with the data from previous surveys (Sept. and Nov. 1974) indicates that the condition of the streams has remained static. The continued presence of the pollution tolerant midge Chironomus sp. at stations B-1 and B-1A and the absence of a diverse fish population at station M-1 indicates that a polluted condition exists.

In view of the continuing seepage of chemicals from the hillside above station B-1 (see map) it appears that the polluted condition of Mill Creek will probably continue for several years unless some measures are taken to control or treat the seepage.

Attached please find the data from this survey and a map of the sampling locations. Please advise if you have any questions.

GHM:cmx

Attachment

000090

MACROINVERTEBRATE DATA

| ORGANISMS | No. of Organisms per Sample (5 sq. ft.) | | | |
|--------------------------------------|--|-------|-------|-------|
| | STATIONS | | | |
| | B-1 | B-1A | B-2 | M-1 |
| Chironomidae (midges) | | | | |
| <u>Chironomus</u> sp. | 1,326 | 2,200 | ----- | ----- |
| <u>Pentaneurini</u> | 14 | 24 | 10 | ----- |
| <u>Procladius</u> sp. | ----- | 8 | ----- | ----- |
| <u>Tribelos</u> sp. | ----- | ----- | 2 | ----- |
| <u>Polypedilum</u> sp. | ----- | ----- | ----- | 2 |
| Tipulidae (crane flies) | | | | |
| <u>Limonia</u> sp. | ----- | ----- | 1 | ----- |
| <u>Tipula</u> sp. | ----- | ----- | 1 | 1 |
| <u>Dicranota</u> sp. | ----- | ----- | 1 | ----- |
| <u>Erioptera</u> sp. | 13 | 2 | ----- | ----- |
| <u>Pilaria</u> sp. | ----- | 2 | ----- | ----- |
| Tabanidae (horse flies) | | | | |
| <u>Chrysopa</u> sp. | ----- | 2 | ----- | 2 |
| Culicidae (mosquitoes) | | | | |
| <u>Aedes</u> sp. | 4 | ----- | ----- | ----- |
| Ptychopteridae (phantom crane flies) | | | | |
| <u>Bittacomorpha</u> sp. | 2 | ----- | ----- | ----- |
| Simuliidae (black flies) | | | | |
| <u>Simulium</u> sp. | ----- | ----- | 56 | 5 |
| Muscidae (house flies) | | | | |
| <u>Lispe</u> sp. | ----- | 2 | ----- | ----- |
| Hydropsychidae (caddis flies) | | | | |
| <u>Cheumatopsyche</u> sp. | ----- | ----- | 56 | 2 |
| <u>Hydropsyche betteni</u> | ----- | ----- | ----- | 38 |
| <u>Hydropsyche simulans</u> | ----- | ----- | ----- | 12 |
| Perlodidae (stone flies) | | | | |
| <u>Isoperla</u> sp. | ----- | ----- | 8 | ----- |
| Cordulegasteridae (dragonflies) | | | | |
| <u>Cordulegaster</u> sp. | ----- | ----- | 6 | 1 |
| <u>Zygoptera</u> sp. | ----- | ----- | 1 | ----- |
| Dytiscidae (diving beetles) | | | | |
| <u>Acilius</u> sp. | 1 | ----- | ----- | ----- |
| Gyrinidae (whirligig beetles) | | | | |
| <u>Gyrinus</u> sp. | ----- | ----- | 2 | ----- |

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MACROINVERTEBRATE DATA
(con't)

| ORGANISMS | M-1 | M-11 | M-2 | M-1 |
|--------------------------|-------|-------|-------|-------|
| Elmidae (riffle beetles) | | | | |
| <u>Macronychus</u> sp. | ----- | ----- | 1 | ----- |
| Sialidae (alder flies) | | | | |
| <u>Sialis</u> sp. | ----- | 10 | 2 | 1 |
| Corydalidae (fish flies) | | | | |
| <u>Chauloides</u> sp. | ----- | ----- | 51 | 4 |
| Tubificidae | | | | |
| <u>Tubifex</u> sp. | ----- | 20 | ----- | 3 |

FISH DATA

150 feet sampled
at station M-1

American eel Anguilla rostrata 4
Least Brook lamprey Lampetra aepyptera 10

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Biological Samples & STATIONS - U
NOV. 25, 1971 & JULY 2, 1975

NOV. 25, 1971 + JULY 2, 1975

4.11.

9001

6. 12. 1946

PARLEY RJ

107700-000 00

SPRING HEADS (UNCONTAMINATED!)

spring head
(containing 74)

Chemical

081

114602

HN4U

SEILING
POND

CABLE LINE

342

MILL CREEK

Pr: 40

000291